



3029-108

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#13 Appeal  
Briefs  
v. Barrett  
12/3/02  
3023

Applicant: James R. Bonds and Richard B. Barrett  
Serial No.: 09/556,200  
Filed: April 21, 2000  
Art Unit: 2859  
For: An In-Situ Standard for Temperature Indicating Labels  
Examiner: Yaritza Guadalupe

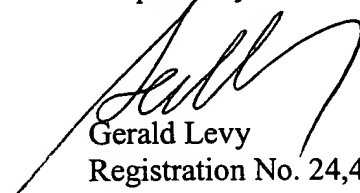
TRANSMITTAL OF APPEAL BRIEF

Box AF  
Honorable Commissioner  
of Patents and Trademarks  
Washington, D.C. 20231

S I R:

Enclosed is an original brief to the Board of Patent Appeals and Interferences and three photocopies thereof. This brief is being filed pursuant to the Notice of Appeal dated September 26, 2002 (return postcard dated October 1, 2002). The fee for filing an appeal brief pursuant to 37 C.F.R. §1.17 is enclosed. Any other fees may be charged to Deposit Account 50-1145, Order No. 3029-108.

Respectfully submitted,

  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

#13/ appeal  
Bonds  
Brown  
12/3/02  
133

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Application Serial No. 09/556,200

Filed: April 21, 2000

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Examiner: Yaritza Guadalupe

AN IN-SITU STANDARD FOR TEMPERATURE INDICATING LABELS

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Ex parte: James R. Bonds and Richard B. Barrett

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BRIEF FOR THE APPELLANTS

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Pitney, Hardin, Kipp & Szuch LLP  
Attorneys for the Appellants

I. REAL PARTY IN INTEREST

The real party in interest is assignee Cordis Corporation. Tempil, Inc., which is a business unit of Illinois Tool Works Inc., further has an interest in the invention.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

Claims 1, 2, 4-12, 14 and 15 are rejected.

Claim 13 is allowed.

Claim 3 is canceled.

IV. STATUS OF AMENDMENTS

An after-final Request for Reconsideration dated August 30, 2002 (the return postcard was dated September 4, 2002) was filed in response to the after-final Office Action of March 29, 2002. The Advisory Action of September 26, 2002 stated that the Request for Reconsideration did not place the application in condition for allowance.

V. SUMMARY OF INVENTION

An embodiment of the invention is a label (Fig. 1, elements 10, 10', 10'') with irreversibly fusible material which permanently fuses and changes color after exposure to a selected threshold temperature (page 11, lines 4-12). The label, however, during manufacture, is initially selectively fused in situ in order to create a contrasting pattern between the selectively

fused (Figs. 1 and 2, element 20) and the unfused portions (Figs. 1 and 2, element 22). This initial selective fusing may be performed by direct contact with a heated surface, such as hot stamping, or by radiant energy from an infra-red lamp (Figs. 3, 4 and 5). Other methods may be used to create the contrasting pattern, in situ, between the fused and unfused portions.

Alternatively, incompletely obscuring the functional surface of the indicator may be achieved by printed a pattern of fusible material (Fig. 6, element 32) on an absorptive surface (Fig. 6, element 30) which allows a portion of the surface to remain visible. Subsequent melting and fusing of the fusible material would result in the unobscured view of the functional surface of the indicator (page 13, line 12 – page 14, line 2).

A further alternative is to place a fully coated surface in proximity to wholly uncoated surface during construction of the label. For example, white (coated) and black (uncoated) semi-circles (Fig. 7, elements 50 and 52, respectively) could be joined to give the appearance of a half white and half black circle (Fig. 7). Subsequent fusing of the coated surface would result in a uniform black appearance (page 14, lines 3 – 8).

## VI. ISSUES

1. Are claims 1-2, 4-6, 12, 14 and 15 anticipated under 35 U.S.C. §102(b) by the Spirg reference (U.S. Patent No. 4,459,046)?
2. Are Claims 1 and 11 anticipated under 35 U.S.C. §102(b) by the Arens reference (U.S. Patent No. 4,428,321)?
3. Are Claims 7-10 obvious under 35 U.S.C. §103(a) over the Spirg reference in view of the Haas reference (U.S. Patent No. 5,719,828)?

## VII. GROUPING OF CLAIMS

Claim 1 and claims dependent thereon stand separate from Claim 14 and claims dependent thereon in the first ground of rejection as Claims 1 and 14 are separate independent claims. Otherwise, the claims are deemed to stand or fall together for each ground of rejection.

## VIII. ARGUMENTS

1. Are claims 1-2, 4-6, 12, 14 and 15 anticipated under 35 U.S.C. §102(b) by the Spirg reference (U.S. Patent No. 4,459,046)?

The Spirg reference discloses a device with a layer of material 12 which changes color at a predetermined temperature and a colored annulus 14 which is printed in a color which is selected "according to a predetermined code ... to denote the temperature at which the spot 12 changes" (col. 2, lines 10-14). The specification of the Spirg reference further gives the example of using a gray annulus for a 60° C. indicator.

In short, this colored annulus is neither "fused" nor "fusible" and therefore cannot be construed as either the first or second portion of the layer of material of Claim 1.

More specifically, the Spirg reference is quite different from the present invention as claimed in Claim 1 which recites "a layer of material which substantially irreversibly changes from a first appearance to a second appearance in response to exposure to a threshold temperature" and wherein "a first portion of said layer of material is initially free from exposure to said threshold temperature" and "a second portion of said layer is initially exposed to said threshold temperature and thereby fused". These first and second portions result in respective first and second appearances which "form a visible pattern". In particular, there is absolutely

nothing in the Spirg reference which discloses or suggests that “a second portion of said layer is initially exposed to said threshold temperature and thereby fused” while a “a first portion ... is initially free from exposure to said threshold temperature”. In the Spirg reference, it appears that the entire spot 12 is initially free of exposure to the threshold temperature, but there is absolutely nothing which indicates that either some portion of spot 12 is initially exposed to the threshold temperature or that annulus 14 is initially exposed to the threshold temperature. In this regard, the Applicant respectfully but vigorously traverses the statement in the Office Action, referring to the Spirg reference, “and wherein a second portion (14) of said layer of material is initially exposed to said threshold temperature and has said second appearance (see Column 3, lines 4-6)”. However, when referring to Column 3, lines 4-6, one finds Claim 4 of the Spirg reference, to wit:

4. Apparatus as defined in claim 1, wherein said layer of printed material is colored to indicate the temperature of color change of said color-changing material.

*Is col 2 lines 50-53*  
This language appears to be based on nothing more than the above-identified language in column 2, lines 10-14 of the Spirg reference where the annulus may be color coded as gray to indicate a 60° C. indicator. This says nothing about initially exposing the layer of “printed material” to the threshold temperature. This further says nothing about the spot and the indicator being formed of first and second portions of a layer of material.

Similarly, Claim 14 recites a first portion of the layer being “initially fusible to provide said first appearance, and further including a second portion of said material being fused to provide said second appearance”. There is nothing in the Spirg reference to disclose or suggest separate “fusible” and “fused” portions of a layer of material.

*it has to be exposed so as to indicate a change*

It is therefore respectfully submitted that Claims 1, 2, 4-6, 12, 14 and 15 are patentable over the Spirg reference.

2. Are Claims 1 and 11 anticipated under 35 U.S.C. §102(b) by the Arens reference (U.S. Patent No. 4,428,321)?

The Arens reference discloses a uniform coating layer of transparent fusible material. Similar to the above discussion, there is nothing which states that a first portion of the layer of material is initially free from fusing and that a second portion of the layer of material is initially fused.

It is therefore respectfully submitted that Claims 1 and 11 are patentable over the Arens reference.

3. Are Claims 7-10 obvious under 35 U.S.C. §103(a) over the Spirg reference in view of the Haas reference (U.S. Patent No. 5,719,828)?

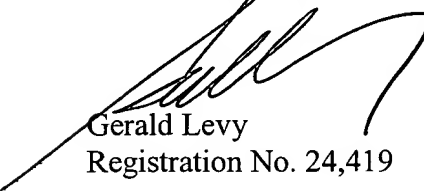
The Office Action further rejected Claims 7-10 as obvious over the Spirg reference in view of the Haas reference (U.S. Patent No. 5,719,828). However, Claims 7-10 are ultimately dependent upon Claim 1. As stated above, Claim 1 is patentable over the Spirg reference, and the Haas reference does nothing to remedy the deficiencies of the Spirg reference with respect to the claimed invention.

In view of the above, it is respectfully submitted that the pending claims are patentably distinct from the art of record.



The Board is respectfully requested to find all of the presently pending claims to be allowable.

Respectfully submitted,



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IX. APPENDIX OF PRESENTLY PENDING CLAIMS

1. A temperature indicating surface comprising:

a layer of material which substantially irreversibly changes from a first appearance to a second appearance in response to exposure to a threshold temperature, and where said material irreversibly fuses in response to said threshold temperature, wherein a first portion of said layer of material is initially free from exposure to said threshold temperature and thereby fusible which provides said first appearance to said first portion, and wherein a second portion of said layer of material is initially exposed to said threshold temperature and thereby fused which provides said second appearance to said second portion, whereby said first portion and said second portion form a visible pattern.

2. The temperature indicating surface of Claim 1 wherein subsequent exposure of said first and second portions of said layer of material to said threshold temperature produces said second appearance on said first portion, thereby resulting in a uniform appearance of said first and second portions.

3. (canceled)

4. The temperature indicating surface of Claim 3 wherein said layer of material is formed on a label.

5. The temperature indicating surface of Claim 4 wherein said label includes a support surface.
6. The temperature indicating surface of Claim 5 further including an adhesive layer on said support surface.
7. The temperature indicating surface of Claim 3 wherein said visible pattern includes text.
8. The temperature indicating surface of Claim 3 wherein said visible pattern includes cross-hatching.
9. The temperature indicating surface of Claim 3 wherein said visible pattern includes parallel dashes.
10. The temperature indicating surface of Claim 3 wherein said visible pattern includes dots.
11. The temperature indicating surface of Claim 1 wherein said second portion of said layer of material is initially exposed to said threshold temperature by direct thermal contact.
12. The temperature indicating surface of Claim 1 wherein said second portion of said layer of material is initially exposed to said threshold temperature by indirect thermal contact.

13. (allowed) A temperature indicating surface including:
- an absorptive layer with a first pattern printed thereon;
- a second pattern printed with irreversibly fusible material on a surface of said absorptive layer over said first pattern, thereby at least partially obscuring said first pattern; and
- wherein said irreversibly fusible material, upon exposure to a threshold temperature, melts and is absorbed into said absorptive layer, thereby exposing said first pattern to view.
14. A temperature indicating surface including a first portion comprised of material that irreversibly fuses upon exposure to a threshold temperature thereby changing from a first appearance to a second appearance, said first portion initially being fusible to provide said first appearance, and further including a second portion of said material being fused to provide said second appearance.
15. The temperature indicating surface of Claim 14 wherein upon exposure to said threshold temperature, said first portion and said second portion present a substantially uniform second appearance.